

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of the claims in the application:

Listing of Claims:

1. – 26. (cancelled)

27. (new) A process for the production of an amphiphilic nanoscale particle which comprises a hydrolyzable lipophilic radical on a surface thereof, which process comprises (a) subjecting at least one hydrolysable compound which comprises at least one hydrolysable lipophilic group to a hydrolysis and condensation reaction with a substoichiometric amount of water and (b) a subsequent removal of liquid to obtain a plurality of the resultant amphiphilic nanoscale particle in a form of a powder.

28. (new) The process of claim 27, wherein the at least one hydrolysable compound comprises at least one of (i) a hydrolysable metal or semimetal compound which comprises at least one hydrolysable lipophilic group and may comprise one or more non-hydrolysable groups and (ii) a condensation product derived from the at least one hydrolysable compound.

29. (new) The process of claim 28, wherein the at least one hydrolysable compound comprises an alkoxide.

30. (new) The process of claim 28, wherein the at least one hydrolysable compound comprises at least one of (i) a compound of at least one of Mg, Si, Ge, Al, B, Zn, Cd, Ti, Zr, Ce, Sn, In, La, Fe, Cu, Ta, Nb, V, Mo or W and (ii) a condensation product derived therefrom.

31. (new) The process of claim 28, wherein at least one hydrolysable lipophilic group comprises at least four carbon atoms.

32. (new) The process of claim 27, wherein at least one hydrolysable lipophilic group comprises at least five carbon atoms.

33. (new) The process of claim 27, wherein the process further comprises reacting the amphiphilic nanoscale particle with a surface modifier to provide the particle with one or more functional groups on a surface thereof.

34. (new) The process of claim 33, wherein the reaction with the surface modifier is carried out in a solvent.

35. (new) The process of claim 33, wherein the surface modifier comprises at least one of a saturated or unsaturated carboxylic acid, a β -dicarbonyl compound, an amine, a phosphonic acid, a sulfonic acid and a silane.

36. (new) The process of claim 33, wherein in addition to at least one

functional group for attachment or complexation to the surface of the particle,
the surface modifier comprises at least one further functional group.

37. (new) The process of claim 33, wherein the surface modifier comprises a complexing agent.

38. (new) An amphiphilic nanoscale particle, wherein the particle comprises at least one hydrolysable lipophilic radical on a surface thereof.

39. (new) The particle of claim 38, wherein the at least one hydrolysable radical comprises a lipophilic moiety which has at least four carbon atoms.

40. (new) The particle of claim 39, wherein the lipophilic moiety comprises at least five carbon atoms.

41. (new) The particle of claim 38, wherein the at least one hydrolysable radical comprises at least one of an alkoxy, alkenyloxy, alkynyloxy, aryloxy, aralkyloxy, alkaryloxy, ether, acyloxy, alkyl or acyl radical.

42. (new) The particle of claim 41, wherein the at least one hydrolysable radical is fluorinated.

43. (new) The particle of claim 41, wherein the at least one hydrolysable

radical comprises a C₄-C₂₀-alkoxy radical.

44. (new) The particle of claim 43, wherein the at least one hydrolysable radical comprises at least one of a pentoxy radical and a hexoxy radical.

45. (new) The particle of claim 38, wherein the at least one hydrolysable radical is derived from a hydrolysable precursor of the particle.

46. (new) The particle of claim 38, wherein the particle comprises one or more optionally hydrated oxides of one or more metals or semimetals.

47. (new) The particle of claim 38, wherein the particle comprises at least one compound of one or more elements selected from Mg, Si, Ge, Al, B, Zn, Cd, Ti, Zr, Ce, Sn, In, La, Fe, Cu, Ta, Nb, V, Mo and W.

48. (new) The particle of claim 38, wherein the particle is surface-modified with at least one function group.

49. (new) The particle of claim 48, wherein the at least one function group comprises at least one functional group.

50. (new) The particle of claim 49, wherein the at least one functional group is capable of entering into a crosslinking reaction with a functional group of the

same type or a different type.

51. (new) The particle of claim 49, wherein the at least one functional group comprises at least one of a hydroxy, epoxy, thiol, amino, carboxyl, carboxylic anhydride, carbonyl, isocyanate, sulfonic acid, phosphonic acid and quaternary amine group, a C-C double bond and a fluorinated hydrocarbon group.

52. (new) The particle of claim 38, wherein the particle is doped.

53. (new) The particle of claim 38, wherein the particle comprises a coating of a material which is different from a material of the particle to form a core/shell system.

54. (new) A powder which comprises a plurality of the particle of claim 38.

55. (new) A composition which comprises the particle of claim 38 and a matrix forming material.

56. (new) The composition of claim 55, wherein the particle is surface-modified with a functional group which is capable of entering into a crosslinking reaction with a functional group of the matrix forming material.

57. (new) The composition of claim 55, wherein the composition is at least

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